REMARKS

The Office Action dated September 7, 2004 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 2, 5, 6, 10, 13 and 17-23 are amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter is added. Thus, claims 2-23 are pending in the present application. Applicant respectfully submits the claims for consideration.

Applicant notes that the rejections from the previous Action have been withdrawn.

Claims 6 and 14 were objected to because of informalities. Applicant amends claims 6 and 14 to resolve the informalities. Thus, the objection is rendered moot.

Claims 7-9 and 18-20 were rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regard to claims 18-20, applicant amends these claims to resolve the informalities alleged to be within the claims. Thus, applicant respectfully requests the indefiniteness rejection of claims 18-20 be withdrawn.

The Office Action does not provide any grounds for an indefiniteness rejection of claims 7-9. The Office Action, however, alleged that claims 2, 10 and 17 do not clearly indicate various terms recited in the claims, even though they are not listed as being formally rejected under Section 112, second paragraph. Applicant, however, addresses

the comments stated in the Office Action directed to claims 2, 10 and 17. Applicant amends the claims to more clearly indicate the subject matter of the invention. Applicant respectfully requests the indefiniteness rejection be withdrawn.

Claims 2-23 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,404,544 (*Crayford*) in view of U.S. Patent No. 6,198,727 (*Wakeley et al.*). The Office Action took the position that *Crayford* taught all the features of the claims except specifying extension of the IEEE 802.3 standard for interoperability in the local area network. The Office Action then took the position that *Wakeley* taught using parallel detection for legacy devices for link assurance. Applicant respectfully traverses and submits that the cited references, either alone or in combination, do not disclose or suggest all the features of any of the pending claims.

Claim 2, upon which claims 3-9 are dependent, recites a transceiver circuit for transmitting and receiving industry-standard data signals. The transceiver circuit includes a transmitter subcircuit transmitting a pulse during a power-down mode to indicate a status. The pulse does not conform to an industry-standard pulse for indicating a power-on status. The transceiver circuit also includes a receiver subcircuit. The transmitter subcircuit and the receiver subcircuit each has its own power supply and means for activation and deactivation. When the transmitter subcircuit is in a power-on mode, the transmitter subcircuit transmits the industry-standard pulse for indicating the power-on status.

Claim 10, upon which claims 11-16 are dependent, recites a transceiver circuit for transmitting and receiving industry-standard data signals. The transceiver circuit includes a transmitter subcircuit transmitting a pulse during a power-on mode to indicate a status. The pulse does not conform to an industry-standard pulse for indicating a power-on status. The transceiver circuit also includes a receiver subcircuit having a media independent interface for receiving data. The receiver subcircuit remains power-on during the power-down mode. The transmitter subcircuit and receiver subcircuit each has its own power supply and means for activation and deactivation. When the transmitter subcircuit is in a power-on mode, the transmitter subcircuit transmits the industry-standard pulse for indicating the power-on status.

Claims 17, 21, 22 and 23 also recite a transceiver circuit for transmitting and receiving industry-standard data signals, and recite some of the features of claims 2 and 10, as discussed above.

As discussed in the specification, examples of the present invention enable the minimizing of power consumption during an idle period. The power consumption of the transceiver circuit may be reduced by providing each defined subcircuit with its own power supply and means of activation and deactivation. A normal link pulse may be used rather than the MLT3 signal type to indicate a status for a live connection for transceiver circuits. Because the MLT23 signal type consumes more power than a normal link pulse, the energy may be reduced that is needed to indicate that the transceiver is alive and available in a power-down mode. It is respectfully submitted that the cited references of

Crayford and *Wakeley*, when viewed alone or when combined, fail to disclose or suggest the elements of any of the presently pending claims. Therefore, the cited references fail to provide the critical and unobvious advantages discussed above.

Crayford relates to a system for periodically transmitting signals to and from a sleeping mode identifying its existence to a network and awakening the sleeping mode responding to received instructions. During a link good condition of *Crayford*, a transceiver outputs a link status signal. A media access controller uses the link status signal to provide power management. By using a programmable AWAKE bit, the received section of the transceiver remains powered, even if the SLEEP input to the media access controller is activated. Detection of link beat pulses 60 produced by transceiver 37 and transceiver 37a are used to establish that a link in the network is in place. Referring to Figure 3 of *Crayford*, transceivers 37' and 37a' each output a link beat pulse 60. Thus, the health of the communication link can be permanently monitored. By using a programmable AWAKE bit, the received section of transceiver 37 can remain powered even if a sleep input to media access controller is activated. This allows transceivers 37 to detect a link beat pulse 60 for received packet activity. If the link status output is active, then a computer is connected to an active network and it is likely that the operating system will allow the media access controller 30 to remain powered. If the link status output becomes inactive, then the system can assume that the link is inactive, and the media access controller 30 can be powered down to safe power. If, at a later time, the link is reestablished, the MAC 30 can be powered back up to take

advantage of the communications channel. *Crayford*, however, does not disclose or suggest the feature of a transmitter subcircuit transmitting a pulse during a power-down mode to indicate a live transceiver circuit, wherein the pulse does not conform to an industry-standard pulse for indicating a live transceiver.

Wakeley relates to a method and apparatus for providing 10BASE-T/100BASE-TX link assurance. *Wakeley* describes a link device that establishes links to partners regardless of their capability without the need to select a mode of operation manually. *Wakeley* describes an algorithm that assures linkability between those devices that are not 100% compliant with IEEE 802.3. Using this algorithm, *Wakeley* describes a link device linking with legacy partners. Thus, a link assurance firmware algorithm allows a plug-and-play-like interoperability between any combinations of devices, regardless of the differences in the capabilities. *Wakeley*, however, does not disclose or suggest a transmitter subcircuit transmitting a pulse during a power-down mode to indicate a live transceiver circuit, wherein the pulse does not conform to an industry-standard pulse for indicating a live transceiver.

In contrast, claim 2 recites "a transmitter subcircuit transmitting a pulse during a power-down mode to indicate status, wherein said pulse does not conform to an industry-standard pulse for indicating a power-on status." This feature is also recited in claim 10 along with additional features. Claim 17 recites "a transmitter subcircuit transmitting a minimally powered link pulse during a power-down mode to indicate a status, said pulse does not conform to an industry-standard pulse for indicating a power-on status." Claims

21 and 22 recite some of the features as in claim 2, except drawn to a transmitter subcircuit means. Claim 23 recites some of the features as in claim 10, except drawn to a transmitter subcircuit means. Applicant respectfully submits that the cited references, either alone or in combination, do not disclose or suggest at least these features of any of the presently pending claims.

Applicant submits that *Crayford* does not disclose or suggest the transmitter subcircuit transmitting a pulse during a power-down mode to indicate a status, wherein the pulse does not conform to an industry-standard pulse for indicating a power-on status. *Crayford* does not disclose or suggest transmitting a pulse that does not conform to an industry-standard pulse. *Crayford* describes a received section that remains powered even when the controller is in a sleep mode. Receiving signals at the transceiver does not disclose or suggest a transmitter subcircuit transmitting a pulse during a power-down mode. Instead, *Crayford* describes receiving signals and, in fact, *Crayford* states that "all outputs will be placed in an inactive or high impedance state." *Crayford* does not disclose or suggest transmitting any output during powered-down mode. Thus, the transceiver of *Crayford* does not disclose or suggest the transmitter subcircuit transmitting a pulse during a power-down mode to indicate a status.

Applicant also submits that *Wakeley* does not disclose or suggest those features of the present claims missing from *Crayford*. *Wakeley* describes allowing a link device to link automatically to partners within a network regardless of their capability. This aspect of *Wakeley* does not disclose or suggest a transmitter subcircuit transmitting a pulse

during a power-down mode to indicate a status. The link device of *Wakeley* does not disclose or suggest transmitting a pulse during a power-down mode. Further, the auto-negotiation process described in *Wakeley* does not transmit the pulse during power-down modes to indicate the status, or any of the partners connected to the link device. *Wakeley* also does not disclose or suggest transmitting a pulse that does not conform to an industry-standard pulse. Therefore, *Wakeley* does not disclose or suggest at least these features of the presently pending claims.

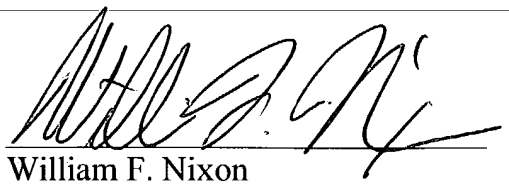
The remaining dependent claims also are not disclosed or suggested by the cited references, either alone or in combination, for at least the reasons given above, and because they recite additional subject matter that is not disclosed or suggested by the cited references. For at least these reasons, applicant submits that claims 2-23 are not disclosed or suggested by *Crayford* and *Wakeley* and respectfully requests that the obviousness rejection be withdrawn.

It is submitted that each of claims 2-23 recites subject matter that is neither disclosed nor suggested by the cited references, either alone or in combination. It is therefore respectfully requested that all of claims 2-23 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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